UNITED STATES OF AMERICA BEFORE THE FEDERAL TRADE COMMISSION

COMMISSIONERS: Lina M. Khan, Chair

Rebecca Kelly Slaughter Christine S. Wilson

Alvaro Bedoya

In the Matter of

Illumina, Inc.,

a corporation

Docket No. 9401

and

GRAIL, Inc.,

a corporation.

MOTION OF NON-PARTY ANTITRUST, PATENT, AND LAW-AND-ECONOMICS SCHOLARS AND JURISTS FOR LEAVE TO FILE BRIEF AS AMICI CURIAE SUPPORTING RESPONDENTS

Professors Richard Epstein, Adam Mossoff, and other signatories listed in the addendum to this motion (hereinafter "Amici") respectfully ask leave to file the accompanying brief as amici curiae under 16 C.F.R. § 3.52(j). Amici are scholars and other jurists specializing in antitrust, patent law, and law and economics. Their scholarship has been published in the *American Economic Review*, the *Journal of Law and Economics*, the *Yale Law Journal*, and the *Harvard Law Review*, among others. Together their work has been cited more than 16,000 times. ¹

Amici have a professional interest in promoting antitrust enforcement that is informed by modern economics and that protects the public's access to new technologies. Although Amici are

¹ See Fred R. Shapiro, *The Most-Cited Legal Scholars Revisited*, 88 U. Chi. L. Rev. 1595, 1602 tbl.1 (2021).

not privy to the confidential evidence in this case, they wish to serve the Commission, and the public interest, by elaborating the complex legal and economic principles at the case's center.

Because they have no stake in the outcome of the proceeding, their brief reflects an objective and disinterested perspective not offered by the parties.

Amicus briefs in FTC adjudications are appropriate when they will serve the public interest. *See, e.g., Evanston Nw. Healthcare Corp.*, 2006 WL 367352, at *2 (F.T.C. Jan. 24, 2006). The ultimate decision in this case will have repercussions beyond the market for multicancer early detection tests, potentially affecting the ability of companies in many different sectors to commercialize new and existing technologies efficiently. For this reason, the public would benefit from the Commission's consideration of Amici's views, which are informed by decades of collective research and experience in relevant fields.

Dated: November 2, 2022

Respectfully submitted,

<u>/s/ Gary Zanfagna</u>

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INTEREST OF AMICI CURIAE

Amici curiae are seventeen law professors, economists, and former government officials with expertise in antitrust, patent law, and law and economics. Their work has appeared in the *American Economic Review*, the *Journal of Law and Economics*, the *Yale Law Journal*, and the *Harvard Law Review*, among others, and collectively has been cited more than 16,000 times. As scholars and former public servants, they have an interest in promoting the coherence and development of legal doctrines consonant with sound economic principles and in ensuring that both consumers and the general public benefit from new inventions and technologies. They have no stake in any party nor in the outcome of this proceeding. Amici write to serve the Commission and the public interest by elaborating the legal and economic principles that frame this dispute. The amici and their affiliations are listed in the Appendix.¹

INTRODUCTION

This case presents a complex set of transactions whereby Illumina, Inc. ("Illumina") created GRAIL, Inc. ("GRAIL"), spun it off while retaining a minority interest, and now has reacquired it. Complaint Counsel seeks to unwind this recent reacquisition. But as Chief Administrative Law Judge D. Michael Chappell's Initial Decision ("ID") recognized, vertical mergers are structurally distinct from horizontal mergers. Horizontal mergers carry inherent risks of anti-competitive effect; vertical mergers, by contrast, often offer procompetitive benefits. (See ID 169.) Unwinding this transaction would set a dangerous precedent by deterring innovative companies like Illumina from developing and commercializing new products or, at a minimum,

¹ No party's counsel authored this brief in whole or in part; no party or party's counsel contributed money that was intended to fund preparing or submitting the brief; and no person, other than the amici curiae or their counsel, contributed money that was intended to fund preparing or submitting the brief.

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restricting consumers' access to those products. Antitrust enforcers should be held to a higher burden before risking such market disruptions.

An overbroad presumption against vertical mergers—of the type Complaint Counsel advocates here—is particularly inappropriate in the complicated institutional landscape of biopharmaceutical markets, especially those still in their infancy. Here, for example, it is difficult to predict how the market for Multi-Cancer Early Detection Tests ("MCEDs") will operate, particularly when true alternatives to GRAIL's products from other producers are still years away. (See ID 143.) Given the singular importance of capital investment in developing, testing, and commercializing MCEDs, the risks to consumers of blocking such investment are particularly high. Accordingly, courts have refused to enjoin vertical mergers without compelling, concrete evidence that a vertical merger is likely to harm competition to a substantial degree. See, e.g., United States v. AT&T, Inc., 916 F.3d 1029, 1032 (D.C. Cir. 2019). Scholars and courts alike have recognized that the efficiency gains from vertical mergers make it impossible to treat this class of transactions as presumptively anticompetitive. As Judge Chappell acknowledged, challenges to vertical mergers require a more fact-intensive inquiry. (ID 168-69.)

Nor should a company's self-imposed restraints, such as Illumina's Open Offer, be discounted in the way that Complaint Counsel advocates. (*See* Complaint Counsel Br. ("CC Br.") 35.) The Open Offer is a market fact, not a legal remedy, and implicates Complaint Counsel's *prima facie* case. Market participants should be encouraged to structure their operations *ex ante* to avoid potential anticompetitive effects. When markets are new and incentives are speculative, the Commission should not presume that a company in a vertical merger would breach its contractual obligations, especially when there are clear performance metrics that are easily monitored and enforced by the relevant parties.

The potential costs of preventing vertical mergers are high, as experience in emerging-technology markets amply demonstrates. Given the ultimate benefits to consumers, the Commission should be wary about importing the strong presumptions from horizontal-merger law and upsetting a model of spin-off and reacquisition that offers significant procompetitive benefits to consumers.

ARGUMENT

I. Vertical Mergers Are Not Presumptively Anticompetitive

A. Vertical Mergers Differ Fundamentally from Horizontal Mergers

As Judge Chappell recognized, vertical mergers differ from horizontal mergers in their nature and economic effects. (ID 169.) Horizontal mergers pose a substantial inherent risk of reducing competition. Higher market concentrations, as measured by the Herfindahl-Hirschman Index, have the potential to weaken competition through higher prices or lower quality for consumers. *See* Phillip E. Areeda & Herbert Hovenkamp, *Antitrust Law* ¶ 901a (5th ed. 2020). Antitrust law, therefore, justifiably scrutinizes most horizontal mergers to see if their efficiency gains outweigh their restrictive effects.

As a leading antitrust treatise has noted, vertical mergers do not carry these inherent risks: "In contrast to horizontal mergers, which have certain inherent anticompetitive consequences, vertical mergers generally have no inherent anticompetitive characteristics." 4 Earl W. Kintner et al., Federal Antitrust Law § 35.3 (2020); see also Oliver E. Williamson, Economics As an Antitrust Defense: The Welfare Tradeoffs, 58 Am. Econ. Rev. 18 (1968) (advancing a basic model to weigh the efficiency gains against the restrictive effects of these mergers). The key difference between vertical and horizontal mergers is that the latter eliminate competition among substitute firms, whereas vertical mergers bring complementary firms together, thereby reducing the coordination

problems in bringing new products to market. See ABA Section of Antitrust Law, Mergers and Acquisitions 439 (3d ed. 2008).

At one time, many scholars worried that vertical mergers would harm competition by raising barriers to entry. If a manufacturer were allowed to buy one of its retailers, for example, then competing manufacturers would lose access to that retailer, leading to the dubious inference that this change in supply practices actually harmed competition. *See* Ralitza A. Grigorova-Minchev & Thomas W. Hazlett, *Policy-Induced Competition: The Case of Cable TV Set-Top Boxes*, 12 Minn. J. L. Sci. & Tech. 279, 284 (2011) (first describing and then refuting this historical concern). Commentators and legal authorities also used to express concerns that a manufacturer with a monopoly on a particular good might stop selling that good to competitive retailers.

Recent antitrust scholarship, however, has exposed these concerns as fundamentally misconceived. Judge Richard Posner long ago explained why these concerns, which animate Complaint Counsel's theory in this case, are unsound:

Suppose, for example, that kryptonite is an indispensable input in the manufacture of widgets. A owns all the kryptonite in the universe and also manufactures widgets. He could, of course, refuse to sell kryptonite to B, a prospective entrant into widget production. The cost to A of this refusal is the price B would have been willing to pay. Stated differently, by his control of kryptonite A can extract any monopoly rents available in the widget industry without denying a place in widget manufacture to others [sic] firms. If there is a proper antitrust objection, it is to the kryptonite monopoly rather than to vertical integration.

Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. Pa. L. Rev. 925, 936-37 (1979). In other words, since some monopoly rent is assured whether or not the monopolist licenses its product to others, if licensing to others is more efficient, then firms will engage in that practice without any antitrust compulsion. Even if Illumina had monopoly power, that would not be a basis for enjoining the GRAIL merger.

Today, Judge Posner's conclusion—that a company cannot double its monopoly profits just by vertically merging with another firm—is widely accepted in both economic theory and antitrust law. The leading antitrust treatise notes that,

[a]s a general proposition, the profit-maximizing price is determined by the willingness to pay of end-use consumers, and a firm monopolizing a single stage of the production process can obtain all the monopoly profits that are available for that product. Adding another stage cannot simply "leverage" additional profits or lead to higher prices.

Areeda & Hovenkamp, *supra*, ¶ 1003a (footnote omitted). Indeed, even if Illumina were the sole supplier of suitable Next-Generation Sequencing ("NGS") platforms, it could not increase its profits by converting its downstream acquisition, GRAIL, into a monopolist. The lost opportunities are often worth more than the exclusive control over the downstream market. In addition, the presumption in Complaint Counsel's argument that the patents on the technologies create market power, which is a key premise underlying its assertion that Illumina is a monopolist that will exercise illegal power to constrain competition and raise prices, has been rightly discarded by the Supreme Court. *See, e.g., Illinois Tool Works Inc. v. Independent Ink, Inc.*, 547 U.S. 28, 44-45 (2006) (abrogating the "patent equals market power" presumption in favor of rule-of-reason analysis).

B. Most Vertical Mergers Are Procompetitive

Vertical mergers usually benefit consumers by achieving efficiencies. Indeed, Areeda and Hovenkamp take the view "that most vertical mergers are procompetitive," since "most instances of vertical integration, even by a monopolist, are competitive." *Antitrust Law* at subchapter 10A-1 introduction. Efficiencies outweigh the restrictive effects because vertical mergers are generally motivated by legitimate business considerations—such as reducing costs—that increase, rather than stifle, competition. *See* 4 Kintner et al., *supra*, § 35.6 ("The same factors that make a vertical merger advantageous from a business viewpoint also may make the merger procompetitive.");

ABA Section of Antitrust Law, *supra*, at 440 (noting economists' view that, because vertical mergers involve complements rather than substitutes, such mergers are "more likely to be motivated by a desire to reduce, rather than increase, the prices of the parties' products").

These efficiencies include the reduction of various transaction costs, such as various breakdown and hold-up problems that can plague distribution chains when separate firms engage in sequential activities, each of which is necessary to produce the finished product. Vertical mergers can also facilitate intra-firm coordination that improves products or service. *See* 2 Julian von Kalinowski et al., *Antitrust Laws and Trade Regulation* §§ 30.03-.04 (2d ed. 2021). An acquired firm may also be made a stronger competitor through infusions of capital, new management, or reduced overhead costs, all of which can lead to more competitive pricing or expanded production. *See* 4 Kintner et al., *supra*, § 35.6. The downstream firm can also reduce uncertainty in the demand for the upstream supplier's products, which can further reduce costs and consumer prices. *See* 2 Kalinowski et al., *supra*, § 30.03.

C. A Presumption Against Vertical Mergers Is Unwarranted

Economists and antitrust scholars have cautioned against presuming the illegality of vertical mergers, given their likely benefits and reduced risks. In 2008, Daniel P. O'Brien, then an economic-policy advisor at the Commission (and the former Deputy Director for Antitrust of the Commission's Bureau of Economics), endorsed this conclusion after a lengthy review of economic theory and the empirical evidence:

The theoretical literature . . . implies a largely benign view of the effects of vertical restraints/integration, consistent with what I have called the fundamental theorem of antitrust ("combining substitutes is bad and combining complements is good, unless demonstrated otherwise"). The empirical literature over the last 25 years largely supports this theorem, at least with respect to the statement about complements. . . . Given the state of the literature, a scientific approach to policy regarding vertical restraints/integration would challenge these practices under two circumstances: (1) direct evidence of likely harm in a specific case, e.g., a natural experiment that suggests that the practice will be harmful; or (2) a belief that the

loss associated with committing type II error (failing to condemn an anticompetitive practice) would be very large relative to the cost of committing type I error (wrongly condemning a pro-competitive practice). There is no empirical basis for such a belief. Thus, my own view, based largely on a Hippocratic philosophy of non-intervention absent good evidence that intervention will have benefits, is that direct evidence of likely harm should be required before condemning a vertical practice. If there were a Hippocratic Oath among antitrust practitioners, this is where a scientific approach would lead.

Daniel P. O'Brien, *The Antitrust Treatment of Vertical Restraints: Beyond the Possibility Theorems*, in The Pros and Cons of Vertical Restraints 40, 81-82 (2008).

Federal courts—including the Supreme Court—have reached similar conclusions, requiring case-specific evidence of likely and substantial harms to competition before interfering with a vertical merger or other vertical restraint. Three recent cases illustrate this approach.

In *Ohio v. American Express*, the Supreme Court considered whether provisions in a credit-card company's merchant contracts—which prohibited merchants from steering customers toward competing credit cards—were anticompetitive under Section 1 of the Sherman Act. 138 S. Ct. 2274, 2279-80 (2018). The Court held that the plaintiffs had not met their burden. *Id.* at 2287. The plaintiffs were required to adduce evidence comparing the actual price (resulting from the alleged restraint) against the counterfactual price (what a competitive price would otherwise have been): "This Court will 'not infer competitive injury from price and output data absent some evidence that tends to prove that output was restricted or prices were above a competitive level." *Id.* at 2288 (quoting *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 237 (1993)).

In *United States v. AT&T, Inc.*, the government challenged the merger of AT&T's satellite-and cable-television divisions with Time Warner's television networks. 916 F.3d 1029, 1035 (D.C. Cir. 2019). The government alleged that, "by combining Time Warner's programming and DirecTV's distribution, the merger would give Time Warner increased bargaining leverage in negotiations with rival distributors, leading to higher, supracompetitive prices for millions of

consumers." *Id.* (internal quotation marks and citation omitted). The D.C. Circuit affirmed the district court's decision in favor of AT&T, noting that the district court properly discounted the government's theories of harm because they were based on "speculative, future predictions [that] lacked adequate factual support." *Id.* at 1045. At the same time, the district court credited AT&T's evidence, which included "real-world data from prior instances of vertical integration." *Id.* at 1037. The district court also properly "credited the efficacy of Turner Broadcasting's 'irrevocable' offer of arbitration agreements," which reduced possible anticompetitive effects during a seven-year period following the merger. *Id.* at 1041. The court of appeals emphasized the government's burden to establish that harm to competition is both substantial and likely—not just possible—in light of the case-specific facts. *See id.* at 1032 ("[T]he government must show that the proposed merger is likely to *substantially* lessen competition").

And in *FTC v. Qualcomm Inc.*, the issue was whether Qualcomm violated Section 1 of the Sherman Act by requiring downstream device manufacturers to license Qualcomm's patents in order to procure crucial modem chips. 969 F.3d 974, 986-87 (9th Cir. 2020). The district court had enjoined the practice, in part on the ground that Qualcomm had an antitrust duty to license its patents to its competitors. *See FTC v. Qualcomm Inc.*, 411 F. Supp. 3d 658, 758-760 (N.D. Cal. 2019). The district court ordered Qualcomm to do so on "fair, reasonable, and non-discriminatory" royalty and other terms that would be subject to judicial or arbitral determination upon challenge by customers (including its rivals). *Id.* at 821.

The Ninth Circuit reversed, finding that the Commission had failed to establish that Qualcomm's policy was anticompetitive. *See Qualcomm*, 969 F.3d at 1005. The court adopted a

² Illumina has similarly made an enforceable Open Offer to its customers, guaranteeing, among other things, the same level of service that GRAIL receives, and that any disputes over supply terms can be resolved through arbitration. (*See* ID 102-19.)

rule-of-reason approach, which requires case-specific analysis of a restraint's "actual effect' on competition." *Id.* at 989 (citation omitted). The court explained that a bare allegation of reduced choice or increased price is not enough to make out an antitrust claim. *Id.* at 990. And "novel business practices—*especially* in technology markets—should not be 'conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm they have caused or the business excuse for their use." *Id.* at 990-91 (citation omitted).

Compared to *American Express* and *Qualcomm*, which addressed post-hoc challenges under Section 1 of the Sherman Act, the test for finding a vertical merger illegal is "much more stringent," since it involves "the difficult task of assessing probabilities in the commercial marketplace." *AT&T*, 916 F.3d at 1032 (citation omitted). Judge Chappell appropriately recognized the fact-intensive nature of evaluating vertical mergers. (*See* ID 133-34.) The Commission should do the same.

D. The Emerging Nature of the MCED Market Warrants Caution

In first spinning off and now seeking to re-acquire GRAIL, Illumina is following the modern biopharmaceutical industry's business model, which has generated considerable innovation over the past several decades. The small start-up hands off new products to experienced firms that are better able to bring them to market. At the initial stage, small start-ups rely on entrepreneurial risk-taking and rewards, specialization, and structural diversity and versatility to speed up early-stage technological innovation. In contrast, the larger firms have complementary advantages in assembling the capital, labor, and management expertise required for the next two stages in the process: funding and delivering later-stage development of therapeutic or diagnostic technologies, including navigating regulatory hurdles, especially before the FDA, followed by ramping up the manufacture and successful commercialization of the products.

This model has only been able to facilitate innovation, through efficiencies in research and development, because of the flexibility to set up firms and to staff them with the necessary talent. There is no single blueprint for success, and quick strategic adjustments in plans and personnel may look chaotic from the outside while in reality being necessary for success. Switches, even reversals, of ownership arrangements are part of the overall package, for myriad reasons. Often, product development requires the close scientific or engineering collaboration within an integrated firm or cooperation agreements among multiple firms. Management synergies are often key in this phase of development. Frequently, substantial and unexpected cost-sharing opportunities may emerge as the process goes forward. For example, one of the most prominent recent successes arose out of the research-and-development collaboration agreement between BioNTech and Pfizer to develop mRNA vaccines for influenza. This collaboration allowed the two companies to pivot quickly from initial development to the FDA approval process to the manufacture and distribution of their COVID-19 vaccine. See Roland Lindner, Biontech's Friend in New York, Deutschland.de

Illumina's divestment of GRAIL may have made perfect sense at time X but not later at time Y. Regulators typically lack the knowledge to predict outcomes in light of market uncertainty.³ The choice of corporate structures and relationships are complex strategic decisions in light of evolving market opportunities and risks, and they may be affected, for example, by rapidly depreciating IP assets subject to competition by design-around therapeutics or generic

(Jan. 27, 2021), https://perma.cc/9LBX-3ZD5.

³ This is certainly a lesson of the AT&T-Time Warner merger that the DOJ sought unsuccessfully to block in 2018. See AT&T, 916 F.3d at 1031-32. Far from the merged entity becoming a monopolistic behemoth, its market remained in such flux that AT&T chose to spin off the acquired assets three years later to adapt to the fast-changing media ecosystem. See Lauren Feiner, AT&T Battled the DOJ to Buy Time Warner, Only to Spin It Out Again Three Years Later, CNBC (updated May 17, 2021, 1:30 PM), https://perma.cc/F479-JLZ4.

entry. See Geoffrey A. Manne, Kristian Stout, & Eric Fruits, The Fatal Economic Flaws of the Contemporary Campaign Against Vertical Integration, 68 U. Kan. L. Rev. 923, 964 (2020) (the presumption that vertical mergers are procompetitive relates to "recognition that the boundaries of firms are somewhat arbitrary from an outside perspective" and "efficient outcomes" depend on "transaction costs, corporate governance, asset specificity issues, and other intangible qualities of firms").

The biotech industry and its consumers would be harmed by a ruling that blocks Illumina from reacquiring GRAIL, given Illumina's conclusion, as a result of new information, that the original ownership structure, or some variant thereof, is now superior to the preexisting arrangement. Innovation in the biotechnology industry increasingly depends on firms' freedom to tailor collaborative arrangements. The Commission should be wary of imposing steep costs on the current business model, not only in this case, but in all settings where today big and small firms are free to optimize between licensing arrangements and outright acquisition, finding the most efficient level of vertical integration.

There has recently been extensive merger-and-acquisition activity in the biopharmaceutical and medical-device sector, predominantly involving smaller companies joining forces with larger companies. But uncertainty over antitrust regulation is clouding the future of this trend. Enjoining Illumina's reacquisition of GRAIL could easily inhibit many sensible corporate reorganizations that are essential to success in an ever-evolving biotech sector. Those hidden efficiency losses will reverberate throughout this dense and informed market. Firms generally have better access to

⁴ See, e.g., Deloitte, How Biopharmaceutical Collaborations Are Fueling Biomedical Innovation (2017), available for download at https://www2.deloitte.com/us/en/pages/life-sciences-and-health-care/articles/how-biopharma-collaborations-are-fueling-biomedical-innovation.html.

⁵ See PwC, Pharmaceutical & Life Sciences: Deals 2022 Midyear Outlook (2022), https://perma.cc/NCA6-P5ZR.

information on which path for development is best, both in research and development and in commercial and institutional organization.

Any regulatory system that effectively locks firms into initial organizational decisions, thereby deterring them from acquiring former collaborative partners, would eliminate a key option offered by vertical mergers: namely, "entrepreneurial exit," whereby startups and venture-capital investors specialize in developing new methods and technologies in the hope of being acquired by an established company with the resources to effectively and efficiently commercialize their products. *See* D. Daniel Sokol, *Vertical Mergers and Entrepreneurial Exit*, 70 Fla. L. Rev. 1357, 1362-63 (2018); *see also* Manne, Stout, & Fruits, *supra*, at 925 (contract is not always a "simple" substitute for merger "in highly dynamic industries in which effective competition often demands both process and product innovation" and where "the management of intangible information assets may not be as readily (or at all) accomplished by contract as by internal coordination"). But if such vertical mergers can be blocked on inherently speculative and unprovable foreclosure grounds, that exit strategy could be blunted, thereby reducing the rate of firm formation at the beginning of the entrepreneurial cycle.

Finally, the Commission should always take into account the risks of a mistaken regulatory decision. The risk to consumers of an imprudent decision is particularly high where, as in this case, the merger concerns a market for rapidly evolving life-saving technology. The question is not simply whether the Illumina-GRAIL merger would help or hamper competition in the MCED market. The Commission should weigh the risk that enjoining the merger would delay patients' access to MCED tests or superior or alternative MCED technology. Complaint Counsel should therefore be held to an especially high burden, given the potential for an improvident injunction to delay potentially substantial benefits to consumers.

II. Complaint Counsel's Attack on the Initial Decision Is Misguided

The courts' recent treatment of vertical mergers and vertical restraints makes three things clear. *First*, Complaint Counsel must prove—based on empirically evidenced probabilities, not just speculative possibilities (*cf.* Compl. ¶ 12)—that the Illumina-GRAIL merger would substantially lessen competition. *See AT&T*, 916 F.3d at 1038 (speculative evidence, evidence not based in fact, and evidence premised on unproven assumptions cannot make out a violation of Section 7 of the Clayton Act).

Second, the likelihood of anticompetitive behavior must be supported by both sound economic theory and empirical evidence. See United States v. AT & T Inc., 310 F. Supp. 3d 161, 229 (D.D.C. 2018) ("[T]he lack of empirical support is reason enough to disregard the slide deck's analysis of the set top box data"), aff'd sub nom. United States v. AT&T, Inc., 916 F.3d 1029 (D.C. Cir. 2019). Government claims not backed by hard evidence should be viewed skeptically, keeping in mind the natural tendency to view novel business practices in new markets as anticompetitive. See Oualcomm, 969 F.3d at 986.

Third, a complete analysis must account for the procompetitive efficiencies likely to be achieved by the merger. See AT & T, 310 F. Supp. 3d at 198 (noting the "important principle" that "to understand whether the proposed merger will harm consumers, . . . it is necessary to 'balance' whether the Government's asserted harms outweigh the merger's conceded consumer benefits") (citations omitted). By acknowledging the fact-specific costs and benefits of vertical mergers, the courts refuse to embrace a presumption of illegality. Complaint Counsel should be held to a similarly rigorous burden—to prove that the proposed merger is *likely* (not just possible) to cause substantial (not just theoretical) harm to consumers by injuring competition in the market.

This is true especially for markets that are still mostly pre-commercial, where the full effects of a merger on other market participants are difficult to predict. Unwinding the merger may

even have the negative effect of delaying the downstream product market from developing to commercial viability (for example, by achieving FDA approval or ramping up production). The current case law imposes sensible evidentiary hurdles that Complaint Counsel should be required to overcome. *Cf. United States v. Baker Hughes Inc.*, 908 F.2d 981, 991 (D.C. Cir. 1990) ("By focusing on the future, section 7 gives a court the uncertain task of assessing probabilities. In this setting, allocation of the burdens of proof assumes particular importance. . . . If the burden of production imposed on a defendant is unduly onerous, the distinction between that burden and the [government's] ultimate burden of persuasion—always an elusive distinction in practice—disintegrates completely.").

A. Complaint Counsel Failed to Prove that Illumina Post-Merger Has an Incentive to Refuse to Sell the NGS Product to Potential GRAIL Rivals

In the Initial Decision, Judge Chappell rightly rejected Complaint Counsel's claim that Illumina post-merger has an incentive to restrict potential rivals' access to its NGS platform, and thus that the merger would be likely to lessen competition substantially. As Judge Chappell observed, facts matter. (ID 132-33.6)

The principal fact that defeats Complaint Counsel's position is that no potential rival has developed an MCED product that is a substitute for, and thus competes with, GRAIL's product. (ID 143.) Noting that GRAIL's MCED test is highly differentiated from the tests being developed by rivals, Judge Chappell found that competitive harms were not "probable and imminent" because

⁶ Citing *Fruehauf Corp. v. FTC*, 603 F.2d 345, 352 (2d Cir. 1979) (holding that a merger challenged under Section 7 must be "viewed... in the context of its particular industry"), and *U.S. Steel Corp. v. FTC*, 426 F.2d 592, 599 (6th Cir. 1970) ("In dealing with vertical acquisitions under Section 7... the United States Supreme Court has relied on several functional factors as indicia of the requisite anti-competitive effect," including, among others, whether competitors may be foreclosed "from a segment of the market otherwise open to them" and "the 'nature and purpose' of the vertical arrangement.").

Illumina would not sacrifice sales to its other customers in order to potentially increase profits from GRAIL's MCED test that are more than 12 years away. (ID 173.7) If Complaint Counsel cannot establish a competitive substitute product, or even an imminent probability that such products will be introduced, the merged entity necessarily has no incentive to foreclose access to the NGS market.

Other companies are aiming at different portions of the larger market, and some may turn the Illumina technology to some unknown alternative use, which may well be kept for commercial reasons as a trade secret. The potential downstream entrants should increase in number, and Illumina wants to supply them. It is not credible to think that Illumina would be prepared to sacrifice downstream income from a company that is not in the same market niche as GRAIL, as that transaction would be all loss and no gain. In addition, GRAIL's potential rivals have yet to reach the stage in which they could commercialize a competing product, which means that foreclosure is impossible in the short and perhaps the medium term. There is no reason why Illumina would want to cut off a market that is not in any competition (currently or imminently) with GRAIL's projects. And it has little reason to want to cut off companies that are moving largely in a different direction. Such cutoffs would result in lost revenue for Illumina and no additional

⁷ Judge Chappell found that GRAIL is competing with others in the research, development, and commercialization of MCED tests. (ID 167.) But a relevant product market consists of all products that are "reasonably interchangeable by consumers for the same purposes." *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 395 (1956). Complaint Counsel thus must prove that competition will be substantially lessened in the market for MCED tests, which depends on a showing that rivals are developing MCED testing products substitutable with GRAIL's.

⁸ See ID 96-97 ¶¶ 836-844.

⁹ See ID 98 ¶ 845 ("Because Galleri is the only NGS-based MCED test that is commercially available, current diversion between Galleri and other tests is impossible.").

revenue for GRAIL. It would also risk hurting Illumina's reputation. (See ID 125 ¶ 1033 (finding that complying with the Open Offer would benefit Illumina's reputation).)

Complaint Counsel rejoins that even if no rival "has crossed th[e] finish line" of "having an FDA-approved test covered by insurance companies," (CC Br. 14), or even developed a workable MCED test, Illumina "cannot risk that someone beats Grail to full commercialization," (CC Br. 16). But to eliminate that conjectural risk from an unidentifiable rival, Illumina would have to take a hammer to its entire (profitable) business of selling to cancer-screening companies, which is already 2% of its revenue¹⁰ and is likely to grow as companies fill market niches and downstream screening technology improves. It is counterintuitive (and at least speculative) that Illumina would make this sacrifice for profits that are at least 12 years out.

Complaint Counsel points to the fact that Illumina paid \$8 billion to acquire GRAIL based on discounted cash-flow analysis of future profitability, arguing that Illumina thus has a "present incentive to disadvantage the competitors who threaten this multibillion-dollar benefit." (CC Br. 16.) But the relevant inquiry is whether, based on reliable econometric proof, it would be more profitable (with all contingencies weighted and assessed) for Illumina to cut out all its cancerscreening NGS customers and supply GRAIL alone than it would be to continue selling its NGS platform to all customers and allow GRAIL (with its considerable technological lead) to compete on the merits in the MCED market. *See AT & T*, 310 F. Supp. 3d at 215 (crediting defendant's econometric analysis based upon "significant, real-world evidence" while discounting the government's presumption as speculation). Without such proof, an injunction is unwarranted.

Even if the Commission were able to identify a direct rival to GRAIL in the downstream MCED testing market, no evidence in the record indicates that Illumina could profit by cutting off

¹⁰ See CC Br. 15 (citing CCFF 3140).

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GRAIL's competitors. To impose foreclosure here means that Illumina must forgo all the revenues that it gains from dealing with those competitors. Any attempt at foreclosure would be destructive if the lost revenue from outside downstream customers is greater than that which would accrue from GRAIL. By raising its prices for various NGS instruments and consumables, the company could reduce its own revenues. By delaying competition with downstream parties, it cuts itself off from valuable information that it needs and develops a bad reputation that will lead others to either cut down or eliminate doing business with GRAIL. By slowing down the licensing process, it also reduces its own gains, and it also gets a poor reputation that could affect future sales. Combining these losing approaches only increases the losses. Why would Illumina take huge short-term hits, when it is unlikely to incur any long-term revenue loss from keeping these technologies widely available? Certainly, Complaint Counsel has not borne its burden of proving economic facts that would lead to foreclosure.

Beyond sacrificing revenues, a strategy of foreclosure would impose considerable competitive risks for Illumina in the broader upstream NGS market. If the probability of a large downstream market for MCED tests is high, new entrants will likely emerge at each stage of the production cycle, including in the supply of NGS products. This is particularly true given the recent expiration of one of Illumina's key patents. (*See* ID 150.) Even if effective competition in the NGS market is not imminent (ID 151-52), it should be accounted for in assessing Illumina's ability and incentive to foreclose its downstream customers from GRAIL's market. It should not be assumed that, over a five- or ten-year window, Illumina will not have any competition for all or some of its NGS applications. Surely Illumina would not make that assumption in its strategic planning.

In sum, the more profitable post-merger course is often that the supplier will continue selling to downstream customers—especially if, as is very possible in GRAIL's market, a

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significant number of entrants develops superior or alternative technology that does not directly compete with GRAIL's product. If such differentiated technologies were instead foreclosed, "the combined firm would not recapture any of those profits' . . . , making foreclosure 'not a very successful strategy." (ID 177 (quoting Complaint Counsel's expert witness).) Accordingly, Illumina has an incentive to cultivate rather than frustrate those innovations. Finally, foreclosure should not be presumed on the false premise that the same monopoly profits can be collected twice. *See supra* at pp. 7-8. If, as Judge Chappell concluded (ID 149), downstream companies are dependent on Illumina's NGS platform, then Illumina was already in a position to charge monopoly prices to GRAIL's competitors, even before the merger.

B. The Open Offer Is a Market Fact that Makes Foreclosure Unlikely

Illumina's incentives alone make Complaint Counsel's case an uphill battle. Illumina's contractual commitments in its Open Offer program defeat Complaint Counsel's claim of market foreclosure.

Illumina's Open Offer program is an extensive, binding, and largely airtight set of contractual constraints on Illumina's power to exclude rivals. It grants customers the right "to purchase Illumina's products on terms and conditions 'substantially similar'" to what they enjoyed prior to acquisition, and it offers similar terms to the ones afforded "similarly situated customers," (ID 98 ¶ 850), thus preventing Illumina from discriminating in favor of GRAIL or any other forprofit rival. It prevents Illumina from sharing with GRAIL any customer's confidential or proprietary information or data. The guarantees apply to service and product supply arrangements. (ID 98-100 ¶ 850-53, 104-05 ¶ 890-95, 107-08 ¶ 905-14.)

In vertical mergers, contracts such as these can effectively vitiate any incentive to behave anticompetitively, particularly where the incentive was tenuous to begin with. The Commission should not presume that a contractually bound party to a vertical merger will shirk its obligations.

Moreover, the terms are readily enforceable; even as to matters like service quality, there are performance metrics (such as product downtime) that can be tracked readily and enforced to ensure contract compliance. (*See* ID 104 ¶ 893.) At a minimum, when considering a party's incentive to foreclose, the Commission should recognize the likely costs to the party of breaching its contractual obligations. Judge Chappell found those costs to Illumina to be high. (*See* ID 182-85.)

When companies know that foreclosure is a losing option, they lose nothing—but gain much—by guaranteeing that their trading partners will not be subject to holdout problems down the road. These guarantees can be enforced through a number of mechanisms, including the baseball-style arbitration provided in Illumina's Open Offer, that avoid the potential harms to consumers of enjoining the merger altogether.

Complaint Counsel speculates that GRAIL would get advance notice of changes in the next generation of NGS platforms; that technological improvements to the platform may be tailored to GRAIL's interests; and that Illumina purportedly has "myriad ways" to adhere to its commitments in name but not in substance. (CC Br. 33-39.) Even if credited, this falls short of proving that "the substantial lessening of competition will be 'sufficiently probable and imminent' to warrant relief." *FTC v. Arch Coal, Inc.*, 329 F. Supp. 2d 109, 115 (D.D.C. 2004) (quoting *United States v. Marine Bancorporation*, 418 U.S. 602, 623 n.22 (1974)).

Complaint Counsel argues that the Open Offer should be treated as a remedy rather than a factor in assessing Complaint Counsel's *prima facie* case. (CC Br. 29.) The Open Offer is better considered a market fact that affects whether the acquisition is substantially likely to affect competition. The burden on Complaint Counsel should be to prove not only Illumina's incentive to foreclose downstream competition at the expense of upstream revenues, but also Illumina's incentive and ability to foreclose in light of its contractual commitments.

Courts appropriately treat contractual commitments as factors that must be considered by the government in proving substantial foreclosure. For example, in *AT&T*, the D.C. Circuit treated AT&T's similar offers as going directly to the government's *prima facie* case, asking whether, in light of the offers, the government had established that the merger was likely to substantially harm competition. 916 F.3d at 1038; *see also id.* at 1031 (faulting the government for not taking into account a merging company's "irrevocable offers of no-blackout arbitration agreements"); *cf. United States v. General Dynamics Corp.*, 415 U.S. 486, 503-04 (1974) (noting that a merging company's long-term contracts, among other factors, effectively rebutted the government's *prima facie* case).

Nor does it make sense to analyze the Open Offer only as a potential remedy and to ignore its *a priori* effect on Illumina's abilities and incentives to foreclose downstream competitors. Unlike *United States v. Aetna, Inc.*, 240 F. Supp. 3d 1 (D.D.C. 2017), which Complaint Counsel invokes for this proposition (CC Br. 29-30), the Open Offer already binds Illumina; it is not a proposed remedy, but a constraint already in place. The Commission should not hypothesize an unlikely competitive harm and then decide whether an extant constraint effectively counteracts it.

Treating the Open Offer (and similar voluntary *ex ante* constraints) as purely remedial would also discourage companies from the salutary practice of building these constraints into their acquisitions. Ideally, companies looking to merge would be encouraged to structure such mergers in a way that effectively removes anticompetitive incentives by the time the merger is consummated. This effectively prevents or reduces the substantial transaction costs associated with enforcement—for the merging parties as well as consumers affected by delay or uncertainty. It also allows market participants, rather than courts or regulators, to structure efficient arrangements well-suited to their industries. If the agreements do not sufficiently counteract the merged

company's ability and incentive to foreclose competition, then the merger can still be enjoined. But allowing parties to avoid Clayton Act issues by consensual contract reduces the need for enforcement. Reducing necessary enforcement in turn removes a potential chill on beneficial and ultimately procompetitive mergers that would otherwise be put off by the possibility of seeking government or court approval of a *post hoc* remedy.

Thus, once Illumina has bound itself to avoid foreclosure, its ability to foreclose competition in the downstream market is largely taken off the table, so that the evident efficiencies of sharing information between Illumina and GRAIL are no longer offset by any restrictive practices. And why does Illumina do this? Because it has already gone through the same basic analysis to conclude that foreclosure of downstream rivals is a losing business strategy. Hence, once this position is taken, it makes the organization of the Illumina-GRAIL relationship all the easier. Originally, the two companies were wholly subject to common ownership, under which preferential forms of self-dealing were always allowed. But Illumina then spun off 88 percent GRAIL for business reasons, which it might not have done if the possibility of later reacquisition was uncertain. The Open Offer precludes the risk of anticompetitive effects from the reacquisition of GRAIL. The Commission has no legitimate reason to block a merger when the only predictable effect of blocking is the loss of efficiency of a vertical merger.

CONCLUSION

Success in delivering on the promise of a commercially viable MCED technology, and the enormous gains to consumer welfare it would bring, is by no means certain. Illumina and GRAIL are best positioned to understand how to bring this critical technology to fruition quickly and efficiently, and the Commission should not intervene except on compelling evidence that the merger is likely to substantially lessen competition, taking into account the procompetitive benefits

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of the merger. The Commission should decline to import from horizontal-merger law a presumption of competitive harm, especially given the risks to consumers of an imprudent decision unwinding this merger.

Dated: November 2, 2022

Respectfully submitted,

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UNITED STATES OF AMERICA BEFORE THE FEDERAL TRADE COMMISSION

COMMISSIONERS:	S: Lina M. Khan, Chair Rebecca Kelly Slaughter Christine S. Wilson Alvaro Bedoya	
In the Matter of	<u> </u>	
Illumina, Inc., a corporati	on De	ocket No. 9401
and		
GRAIL, Inc., a corporation	on.	
PATENT, AND LAW-A FILE BRIEF	ND-ECONOMICS SCHO AS AMICI CURIAE SUP	N OF NON-PARTY ANTITRUST, LARS AND JURISTS FOR LEAVE TO PORTING RESPONDENTS ust, Patent, and Law-and-Economics
Scholars and Jurists for lea	ave to file a brief as amici cu	riae supporting Respondents be, and
hereby is, GRANTED .		
By the Commission:		
		April Tabor Secretary of the Commission
Dated:		

CERTIFICATE OF SERVICE

I hereby certify that on November 2, 2022, I caused the foregoing document to be filed electronically using the FTC's E-filing System, which will send notification of such filing to:

April Tabor	The Honorable D. Michael Chappell
Secretary	Chief Administrative Law Judge
Federal Trade Commission	Federal Trade Commission
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I also certify that I caused a copy of the foregoing document to be served via email to:

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